7095

Diag'd. on Diag. Ch. No. 8201-3

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. PA-025146 *Office No.* H-7095

LOCALITY

State Southeastern Alaska

General locality Davidson Inlet

Locality Edna Bay

1946

CHIEF OF PARTY

Kenneth G. Crosby

LIBRARY & ARCHIVES

DATE

B-1870-1 (1)

7095

Form 537
(Ed. Nov. 1941)

REG. NO. H-7095

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

REGISTER No. H-7095

Field No. PA 025146

State SOUTHEASTERN ALASKA

General locality DAVIDSON INLET

Locality EDNA BAY

Scale 1:2,500 Date of survey May 1946

Instructions dated 27 March 1946

Vessel PATTON

Chief of party K. G. Crosby

Surveyed by K. G. Crosby; H. F. Garber

Soundings taken by fathometer, graphic recorder, ~~hand lead, wire~~

Protracted by C.A.J. Pauw

Soundings penciled by C.A.J. Pauw

Soundings in ~~fathoms~~ feet ✓ at ~~MLW~~ MLLW

REMARKS: Project CS-324

Processed in the Seattle Processing Office.

U. S. GOVERNMENT PRINTING OFFICE 428975

DESCRIPTIVE REPORT TO ACCOMPANY

SHEET PA-025146 H-7095(1946)

EDNA BAY - S. E. ALASKA

MAY 1946 - SCALE 1:2,500

SHIP PATTON K. G. CROSBY, CMDG.

PROJECT:

The survey was made in accordance with Instructions dated 27 March 1946, Project CS-324.

SURVEY LIMITS AND DATES:

The area covers the inshore hydrography of the western part of Edna Bay. The purpose of the large scale is for pier development. The sheet joins the contemporary sheet PA-05146 H-7098(1946), scale 1:5,000.

The sounding was begun on May 8 and completed May 31, 1946.

VESSEL AND EQUIPMENT:

A small 20' motorboat was used in the tagline survey and for close inshore work using the handlead. For the remainder of the work, a fifty foot cabin cruiser equipped with an 808 Depth Recorder was used.

The boats operated from the Ship PATTON alongside the wharf.

TIDE STATION:

A tide station was maintained at the wharf on the western side of Edna Bay, Lat. 55° - 59'.8 6.92, Long. 133° - 39'.8 62 for the reduction of soundings.

SMOOTH SHEET:

The smooth sheet is to be constructed and plotted by the Seattle Processing Office.

CONTROL STATIONS:

All triangulation stations were established in 1946 by this party.

Topographic stations and tagline stations were located by graphic control on Sheets T-7023b Pa-B-46 and T-7024 PA-C-46.

SHORELINE AND TOPOGRAPHY:

The shoreline is taken from Sheets T-7023b PA-B-46 and T-7024 PA-C-46. The offlying rocks and reefs are delineated on Sheets T-7023a Pa-A-46 and T-7023b PA-B-46.

SOUNDINGS:

Soundings were obtained by the 808 Depth Recorder and handlead using standard procedures. Soundings were recorded in feet and tenths.

Serial temperatures and salinities for velocity corrections were observed at the entrance to Edna Bay on June 6, 1946. (See special report on Velocity Correction).

CONTROL OF HYDROGRAPHY:

A large pier is contemplated along the escarpment in the vicinity of Edna Bay Inner Light, making a tagline survey of this area desirable for better control than sextant fixes offer.

Twenty meter intervals were marked off along the escarpment using a point directly below the Light as an origin. These stations were marked by white crosses and extended fourteen north and twenty-two south of origin. These points were then located by

the plane table and indicated on the sheets by small red circles.

In sounding, the zero of the tagline was held at each of these points and the boat held on line by a sextant observer stationed at the point. Previous to starting the day's work, an angle was scaled from the boat sheet between the direction of each line and signal WAD. This angle was set on the sextant.

At station 22, the lines were "fanned" to the right at 5° increments.

For development, the lines were split at points midway between the stations.

For a check on the accuracy of the method, the position of the boat was determined at 100 foot intervals by rod readings from a plane table set-up. The sea was exceptionally smooth during the periods sounded so that the stadia rod could be easily read. These positions were left in pencil on Sheet T-7024 PA-C-46 to be transferred to the smooth sheet.

As the plane table positions of the boat agreed with those plotted by direction and distance, the plane table was not used for the tagline survey in the vicinity of the wharf in the western part of the bay on May 14th, "e" day.

For the remainder of the work, three point sextant fixes were used.

ADEQUACY OF SURVEY:

The survey is adequate for the area covered. However, as it is contemplated to berth large vessels at a proposed pier in the vicinity of Edna Bay Inner Light, wire dragging the channel might be given consideration, especially the five fathom shoal at Lat. 55° - 56'.49, Long. 133° - 38'.33.

the plane table and indicated on the sheets by small red circles.

In sounding, the zero of the tagline was held at each of these points and the boat held on line by a sextant observer stationed at the point. Previous to starting the day's work, an angle was scaled from the boat sheet between the direction of each line and signal WAD. This angle was set on the sextant.

At station 22, the lines were "fanned" to the right at 5° increments.

For development, the lines were split at points midway between the stations.

For a check on the accuracy of the method, the position of the boat was determined at 100 foot intervals by rod readings from a plane table set-up. The sea was exceptionally smooth during the periods sounded so that the stadia rod could be easily read. These positions were left in pencil on Sheet PA-C-1i6 to be transferred to the smooth sheet.

As the plane table positions of the boat agreed with those plotted by direction and distance, the plane table was not used for the tagline survey in the vicinity of the wharf in the western part of the day on May 11th, "e" day.

For the remainder of the work, three point sextant fixes were used.

ADEQUACY OF SURVEY:

The survey is adequate for the area covered. However, as it is contemplated to berth large vessels at a proposed pier in the vicinity of Edna Bay Inner Light, wire dragging the channel might be given consideration, especially the five fathom shoal at lat. 55° - 56'.1Ø, long. 133° - 38'.33.

H-7098 (1946)

The junction with Sheet PA-05146 is satisfactory in regard to soundings and depth curves.

CROSSLINES:

Six percent., cross lines were run with satisfactory crossings.

COMPARISON WITH PREVIOUS SURVEYS AND CHART:

The area is covered on Sheet H-2732, 1904, scale 1:20,000. As chart No. 8171 is compiled from the above sheet, a comparison with the present survey applies equally to both.

Fifty soundings on Sheet H-2732 cover the area of the present survey, which are substantially in agreement, as well as the offlying rocks and reefs.

Additional shoals and reefs were developed on the present survey falling within blank areas of Sheet H-2732.

DANGERS AND SHOALS:

Edna Bay Buoy N 2 marks a shoal of 9 feet at MLLW that is charted as 5-3/4 fms. at Lat. 55°56.50' Long. 133°38.85'

9 ft. appears on chart as 1½ fms. (hand correction)

A shoal with a least depth of 10 feet at MLLW lies in the middle of the channel leading to the present wharf. The shoal is located at Lat. 55° - 56'.62, Long. 133° - 39'.40.

Par. 5, Review

An offlying shoal with a least depth of 8 feet at MLLW lies at Lat. 55° - 56'.35, Long. 133° - 38'.45.

8 ft. appears on chart as 1¼ fms. (hand correction)

The above shoals were verified with the handlead.

WHARF:

The wharf located at Lat. 55° - 56'.90, Long. 133° - 39'.62 is used for supplying the construction camp of the Alcoa Mining Co. The controlling depth along the face of the wharf is 13 feet at the

southern
~~northern~~ end at MLLW.

Fresh water is available at the wharf.

MISCELLANEOUS:

See Descriptive Report of Sheet H-7098(1946) PA-05146, for Coast Pilot Information, Aids to Navigation, Landmarks for Charts and Geographic Names. 814

Submitted by

H. F. Garber

H. F. Garber
Lt. Comdr., USC&GS.

FATHOMETER CORRECTIONS

H-7095 (1946)
SHEET - PA-025146

EDNA BAY, ALASKA

28 May 1946 Through 31 May 1946

"a" day - "c" day

CORRECTION (Ft.)	DEPTH (Ft.)
"A" SCALE	
+0.8	0.0 - 12.0
+0.6	12.1 - 45.5
+0.4	45.6 - 55.0
"B" SCALE	
+1.8	35.0 - 45.5
+1.6	45.6 - 60.2
+1.4	60.3 - 71.5
+1.2	71.6 - 82.9
+1.0	83.0 - 90.0
"C" SCALE	
+0.8	70.0 - 77.0
+0.6	77.1 - 88.5
+0.4	88.6 - 101.0
+0.2	101.1 - 113.5
0.0	113.6 - 126.0

INITIAL CORRECTION

"b" Day

Pos. 164 - 176 -0.5 ft.

H-7095(1946)

STATISTICS FOR HYDROGRAPHIC SURVEY SHEET PA-025146 (Field No.)

USC&GSS PATTON - PROJECT CS-324

DATE	Vol. No.	Day Ltr.	H.L. Sndgs.	Pos.	St. Mi.	Boat Used	Remarks
5/28/46	3	a	0	17	0.5	KLAHINI	
5/29/46	3	b	1	319	24.1	"	
5/31/46	3 & 4	c	11	233	17.0	"	
5/8/46	1	a	536	108	2.0	Runabout	Tagline
5/9/46	1	b	567	114	2.3	"	"
5/10/46	1	c	378	88	1.3	"	"
5/11/46	1	d	190	45	0.7	"	"
5/14/46	1	e	330	10	1.1	"	"
5/20/46	2	f	262	68	2.8	"	
5/21/46	2	g	73	19	0.8	"	
Totals:			2348	1021	52.6		

Area in square statute miles: 1.6

APPROVAL NOTE

The hydrography on this sheet was executed under my direct supervision.

The sounding records and boatsheet have been examined and approved by me. Sounding records and the boat sheet were inspected daily during the survey. It is my opinion that the survey is adequate and no additional survey is required. Except for wire dragging as recommended on page 3

The smooth sheet is to be constructed and plotted by the Seattle Processing Office with tidal data supplied by the Washington Office.

Kenneth G. Crosby
Lt. Comdr., C&GS
Cmdg., Ship PATTON

No. PA 025146 H-7095(1946)

Edna Bay

Davidson Inlet

Smooth Sheet-

Projection is hand made on Whatman Paper.

The elevation of rocks which appear in black ink, between parentheses, on PA-A-46 (T-7023a (1946)) and PA-B-46 (T-7023b (1946)) are regarded as heights above MLLW and have been underlined on the smooth sheet. The topographic sheets remain unchanged, but such elevations should be underscored thereon after inspection.-done-G.F.d.

The ledge awash at minus tides shown on the topographic plate (T-7023a (1946)) PA-A-46 at 55° 56!7 Longitude 133° 38!95 is sketched too large as indicated by soundings 151-152b. delimited from hydro-G.F.d.

The tag lines shown on topo plate PA-C-46 (T-7024 (1946)), where they were located by plane table and stadia, were transferred to the smooth sheet as intended by the field party on page 3 of this report.

Time was entered in the sounding record at the start and finish of each tag line. It has been presumed that soundings were made at equal intervals of time, and the time of change of tide reducers was interpolated on this assumption.

The 10.6 ft. sounding in Vol. I, page 49, at 14:07:00- This sounding is inferred, from the time and its position in the sounding record, to be the least depth on the shoal 245 M. north of Edna Bay Inner Light and 120 M. east of station ALCOA 1946. No plottable position is indicated, but it is suggested that it be substituted for the 11 foot sounding at that point.

Concur in use of 10' for least depth obtained See page 4 of Desc. Report

Layout of Camp-

A print showing the camp of the Alcoa Mining Co., scale 1" to 40', accompanies the smooth sheet. (Not on file)

Priority-

As instructed, these sheets have been given top priority since their receipt. The second sheet in Edna Bay will follow promptly.

TIDAL NOTE TO ACCOMPANY

SHEET PA-025146 H-7095(1946)

Edna Bay - Kosciusko Island

Southeastern Alaska

Edna Bay Tide Gage,
on wharf in western part of Edna Bay

Lat. 55° 56!92 Longitude 133° 39!62

A portable automatic tide gage was maintained continuously from April 30 to June 5, 1946 inclusive.

An assumed value of 4.1 feet on the tide staff as MLLW was used for reducing soundings on the boat sheet.

For the smooth sheet the staff reading of MLLW is 4.2 ft. per Director's letter 36-tmo of 3 July 1946.

H-7095(1946)
PA 025146 - Edna Bay

Geographic Names Penciled on the Smooth Sheet

Kosciusko Island

Edna Bay

Respectfully submitted,

Edgar E. Smith
Cartographic Engineer
Seattle Processing Office

VELOCITY CORRECTIONS

EDNA BAY, DAVIDSON INLET, ALASKA

USC&GSS PATTON * PROJECT 324

KENNETH G. CROS BY * CHIEF OF PARTY
1946

COMPUTATIONS FOR VELOCITY CORRECTIONS

EDNA BAY, ALASKA

MAY 1946

Velocity corrections for the "808" Fathometer used on the Edna Bay Project were arrived at by a combination of bar checks and temperature and salinity corrections.

The "808" "fish" was set at a depth of 2' 9" for "a" - "f" days inclusive on Sheet H-7098(1946) 05146. Due to poor echo returns, the units were lowered to 4' 0" where much better results were obtained.

Bar checks were taken in fathoms at the 2, 5, and 10 fathom depths. Bar checks in feet were taken at 12, 30, and 48 foot depths for "A" scale; at 48 feet for "B" scale; and a bottom comparison was made between "B" and "C" scales at a depth of 90 feet for the "C" scale correction.

Two fathometers, Nos. 74 and 74-S, were used and as both gave consistently equal bar check corrections, the bar checks for the entire work were averaged, obtaining a mean correction curve for fathoms and a mean correction curve for feet.

Temperature and salinity velocity corrections were used for depths extending beyond the range of the bar checks. These corrections were obtained by the standard graphic method described in Field Memorandum No. 2 - 1941.

Graphs were made of the mean bar check corrections and the temperature and salinity velocity curve was then made to intersect the last point of the bar check curve at the corresponding depth and extended to cover the range of depth sounded in the area.

DEPARTMENT OF COM' RCE
U. S. COAST AND GEODETIC VEY
Form No. 717
Rev. Dec. 1938

SHEET No. 1

RECORD OF TEMPERATURES, SALINITIES, AND THEORETICAL VELOCITIES

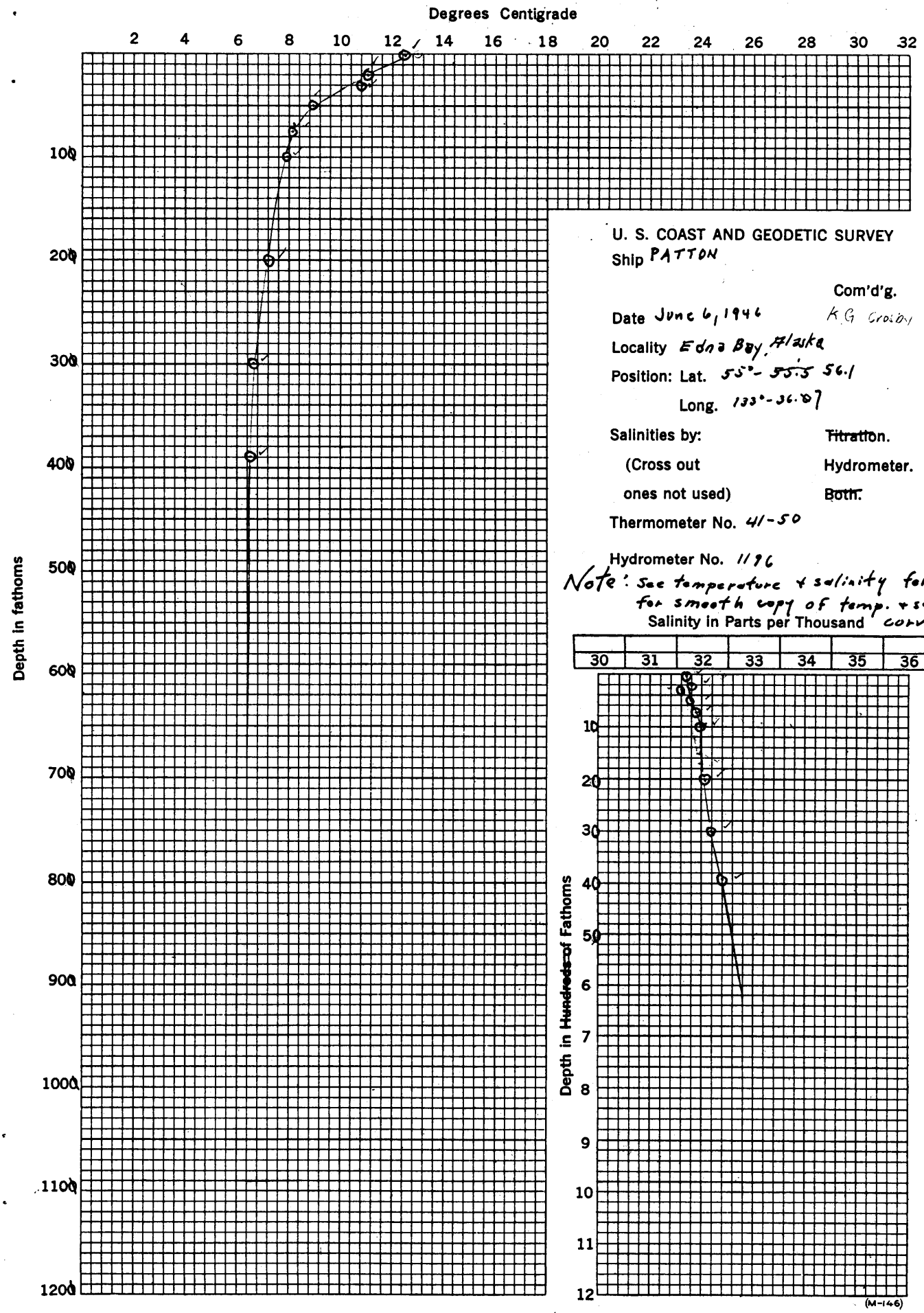
Ship or party PATTON, K. G. Crosby, Chief of party. 6 June, 19 46
Locality Edna Bay Project CS-324 Survey No.

Date 1946	Time 120 mer. h. m.	Latitude and longitude	* Depth Fathoms	Temp. at Depth Obs. °C	Temp. at Depth Cor. °C	Specific Gravity Obs.	Specific Gravity Cor.	At Temp. Obs. °C	At Temp. Cor. °C	† Salinity	Velocity at temp. M./Sec.	Corrections Sal. M./Sec.	Corrections Pres. M./Sec.	Velocity (theoretical) M./Sec.	Therm. No.	Hydro. No.	Remarks (weather, bottom, etc.)
6 June	14:05	55° 56.1 133° 36.7	38.9 B	6.5		1.0247		10.7		32.4					NBS 73768 41-50	1196	drk gn M & sml St. Wind: South-3 Weather: Clear Sea: Choppy
	14:13		30	6.6		1.0246		10.5		32.2							
	14:17:30		20	7.2		1.0245		10.5		32.1							
	14:22:00		10	7.9		1.0244		10.5		32.0							Cup thermometer #380926 NBS 68621
	14:30:00		7.5	8.1		1.0244		10.4		31.9							
	14:26:15		5	8.9		1.0243		10.7		31.8							
	14:38:30		3	10.8		1.0240		11.5		31.6							
	14:34:00		2	11.1		1.0240		12.3		31.8							
			Surface	12.5		1.0239		12.5		31.7							

* If depth recorded is bottom indicate thus: 965 B
† Express in parts /1000. If by titration indicate thus: 34.15 T

U. S. GOVERNMENT PRINTING OFFICE 11—11506

GRAPH OF WATER TEMPERATURES AND SALINITIES



U. S. COAST AND GEODETIC SURVEY
Ship PATTON

Com'd'g.
Date June 6, 1946 K.G. Crosby
Locality Edna Bay, Alaska
Position: Lat. 55°-55.5 56.1
Long. 133°-36.07

Salinities by: ~~Titration~~.
(Cross out ones not used) Hydrometer.
~~Both~~.

Thermometer No. 41-50

Hydrometer No. 1196

Note: See temperature & salinity folder for smooth copy of temp. & salinity curves.

(M-146)

TEMPERATURE AND SALINITY VALUES USED
TO DETERMINE VELOCITY CORRECTION FROM
VELOCITY CORRECTION GRAPH BY GRAPHIC METHOD

PLOT	TAKE OFF	TEMPERATURE	SALINITY
5.0	2.5	10.8	31.7
10.0	7.5	8.1	31.9
15.0	12.5	7.7	32.0
20.0	17.5	7.3	32.0
25.0	22.5	7.0	32.1
30.0	27.5	6.8	32.1
35.0	32.5	6.6	32.2
40.0	37.5	6.6	32.3
45.0	42.5	6.5	32.4
50.0	47.5	6.5	32.5

~~GRAPH OF WATER TEMPERATURES AND SALINITIES~~

Temperature And Salinity Corrections In Fathoms.

~~Degrees Centigrade~~

-0.2 -0.4 -0.6 -0.8 10 12 14 16 18 20 22 24 26 28 30 32

5.0 ~~100~~
10.0 ~~200~~
15.0 ~~300~~
20.0 ~~400~~
25.0 ~~500~~
30.0 ~~600~~
35.0 ~~700~~
40.0 ~~800~~
5.0 ~~900~~
50.0 ~~1000~~
~~1100~~
~~1200~~

Depth in fathoms

U. S. COAST AND GEODETIC SURVEY

Ship Temperature & Salinity Com'd'g. Velocity Correction Curve

Date

Locality

Position: Lat.

Long.

Salinities by: Titration.

(Cross out ones not used) Hydrometer.

Both.

Thermometer No.

Hydrometer No.

Salinity in Parts per Thousand

30 31 32 33 34 35 36

1 2 3 4 5 6 7 8 9 10 11 12

Depth in Hundreds of Fathoms

(M-146)

FATHOMETER CORRECTIONS

H-7098 (1946)

SHEET - PA-05146

EDNA BAY, ALASKA

PERIOD 1

14 May 1946 (a day) Through 24 May 1946 (f day)

CORRECTION (Fms.)	DEPTH (Fms)
+0.3	0 - 0.4
+0.2	0.5 - 3.5
+0.1	3.6 - 7.5
0.0	7.6 - 12.8
-0.1	12.9 - 18.8
-0.2	18.9 - 24.0
-0.3	24.1 - 29.4
-0.4	29.5 - 35.0
-0.5	35.1 - 39.6
-0.6	39.7 - 45.0

PERIOD 2

27 May 1946 (g day) Through 28 May 1946 (h day)

CORRECTION (Fms.)	DEPTH (Fms)
+0.5	0.0 - 8.0
+0.4	8.1 - 13.8
+0.3	13.9 - 20.0
+0.2	20.1 - 25.0
+0.1	25.1 - 30.5
0.0	30.6 - 35.8
-0.1	35.9 - 40.4
-0.2	40.5 - 46.0

INITIAL CORRECTION

"o" Day

Pos. 23 - 33 -0.3 fms.

FATHOMETER CORRECTIONS

H-7095(1946)

SHEET - PA-025146

EDNA BAY, ALASKA

28 May 1946 Through 31 May 1946

"a" day - "c" day

CORRECTION (Ft.)	DEPTH (Ft.)
"A" SCALE	
+0.8	0.0 - 12.0
+0.6	12.1 - 45.5
+0.4	45.6 - 55.0
"B" SCALE	
+1.8	35.0 - 45.5
+1.6	45.6 - 60.2
+1.4	60.3 - 71.5
+1.2	71.6 - 82.9
+1.0	83.0 - 90.0
"C" SCALE	
+0.8	70.0 - 77.0
+0.6	77.1 - 88.5
+0.4	88.6 - 101.0
+0.2	101.1 - 113.5
0.0	113.6 - 126.0

INITIAL CORRECTION

"b" Day

Pos. 164 - 176 -0.5 ft.

GEOGRAPHIC NAMES

Survey No. H-7095

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Southeastern Alaska		(for title)								1
Davidson Inlet		"	"							2
Edna Bay				(location of tide staff)						3
Kosciusko Island										4
										5
										6
			[illegible]							7
			L. Heck 8/31/47							8
										9
										10
										11
										12
										13
										14
										15
										16
										17
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										20
										21
										22
										23
										24
										25
										26
										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7095

Records accompanying survey:

Boat sheets 1; sounding vols. 4; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls 2;

special reports, etc. .....

.....

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet		1021
Number of positions checked		41
Number of positions revised		1
Number of soundings revised (refers to depth only)		27
Number of soundings erroneously spaced		0
Number of signals erroneously plotted or transferred		0
Topographic details	Time	8
Junctions	Time	0
Verification of soundings from graphic record	Time	40

Verification by O. B. Small ..... Total time 114 hrs Date 12-17-46

Reviewed by T. A. Dinsmore ..... Time 38 hrs. Date 1-13-47
J. F. Jordan 8 1-24-47

M-2232-1

HWM

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

Oct. 4, 1946

~~Division of Hydrography and Topography:~~

Division of Charts: H. W. MURRAY

Plane of reference approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 7095

Locality Edna Bay, Davidson Inlet, Southeast Alaska

Chief of Party: K. G. Crosby in 1946
Plane of reference is mean lower low water, reading
4.2 ft. on tide staff at Edna Bay
12.1 ft. below B. M. 1

Height of mean high water above plane of reference is 10.0 feet.

Condition of records satisfactory except as noted below:

E. C. McKay
Section
Chief, ~~Division~~ of Tides ~~and Currents.~~

U. S. GOVERNMENT PRINTING OFFICE 154327

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY REGISTRY NO. 7095

FIELD NO. PA-025146

Southeastern Alaska, Davidson Inlet, Edna Bay
Surveyed in May 1946 Scale 1:2,500
Project No. CS-324

Soundings:

808 Depth Recorder
Hand lead

Control:

Three-point fixes on shore signals
Tagline

Chief of Party - K. G. Crosby
Surveyed by - K. G. Crosby
Protracted by - C. A. J. Pauw
Soundings plotted by - C. A. J. Pauw
Verified and inked by - D. B. Small
Reviewed by - T.A. Dinsmore and G. F. Jordan
January 20, 1946
Inspected by - H. W. Murray

1. Shoreline and Signals

The source of the shoreline and signals is given in the Descriptive Report. Air photographs of this area are now being compiled.(CS-369)

2. Sounding Line Crossings

Depths at crossings are in satisfactory agreement.

3. Depth Curves and Bottom Configuration

The depth curves are satisfactory except for incompleteness in the inshore areas on the south and in the areas noted in par. 4, below.

The bottom is very irregular. Several shoals rise sharply from deep water and numerous reefs, rocks and ledges appear in this portion of the bay. In the vicinity of lat. 55° 56' 32", long. 133° 39' 26", the shoreline area descends quickly to depths of about 40 feet. A shallow narrow trench exists in lat. 55° 56' 39", long. 133° 38' 45". It is defined by the 60-foot curve and is about 300 meters in length.

4. Junctions with Contemporary Surveys

A satisfactory junction is effected with H-7098 (1946) except in the vicinities of lat. 55° 56' 50", long. 133° 39' 22", lat. 55° 57' 05", long. 133° 39' 25" and lat. 55° 56' 45", long. 133° 39' 20", where the junctions are incomplete.

5. Comparison with Prior Surveys

H-2732 (1904) scale 1:20,000

Comparatively few soundings from the prior survey fall in the area of the present survey. Depths on the older survey are generally in fair agreement with those of the present survey. Numerous rocks, reefs and shoals disclosed by development on the present survey fall in blank areas on the prior survey.

The 1-1/4 fm. (8 ft.) sounding charted at lat. 55° 56.62', long. 133° 39.40' and falling in present depths of 10 to 11 feet, should be disregarded. Close development and drift sounding of the shoal on the present survey disproves the prior sounding and establishes a least depth of 10 feet.

The delineation of the area on the present survey is adequate and all information on the old survey may be disregarded in future charting of the entire common area.

6. Comparison with Chart 8171 (Latest print date of Feb. 9, 1946)

A. Hydrography

Charted hydrography originates with the old survey previously discussed, supplemented by advance information furnished by the present survey. The latter includes critical depths that have been added to the chart by hand correction. The present survey supersedes this charted information.

B. Aids to Navigation

The charted light at lat. 55° 56.53', long. 133° 39.43' is shown 80 meters northwest of its present survey position. This discrepancy was previously noted in Chart Letter 351 (1946).

The buoy at lat. 55° 56.48', long. 133° 38.85' is charted 50 meters south of the present survey position. The buoy in either position satisfactorily marks the feature intended.

The dangerous 10-ft. shoal on the present survey at lat. 55° 56' 37", long. 133° 39' 25" is unmarked.

Attention is also directed to the unmarked 30-ft. shoal discovered at lat. 55° 56' 25", long. 133° 38' 20". In the Descriptive Report of H-7098, the Chief of Party states that ships of 30-ft. draft are expected in Edna Bay.

7. Condition of Survey

a. The sounding records and Descriptive Report are complete and comprehensive.

b. The field plotting was very good.

8. Compliance with Project Instructions

The survey adequately complies with the Instructions.

9. Additional Field Work

This is an excellent basic survey and no additional hydrography is recommended, however, wire-dragging the channel is suggested by the Chief of Party on page 3 of the Descriptive Report.

In the vicinity of long. 133° 39' 20", the junction with H-7098 (1946) is incomplete. This area is considered unimportant because the approaches from the east are too treacherous for use as navigational routes.

Examined and approved:

L. E. Fuhrlund
Chief, Nautical Chart Branch

Casper M. Dungan
Chief, Division of Charts

K. O. Crosby
Chief, Section of Hydrography

C. K. Green
Chief, Division of Coastal Surveys

Temperature & Salinity Curve 6 June 1946 Velocity of 820 fm./sec. EDNA BAY ALASKA

5.0 10.0 15.0 20.0 25.0 30.0 35.0 40.0 45.0

Depth in fms.

0.0 -0.1 -0.2 -0.3 -0.4 -0.5 -0.6 -0.7 -0.8 -0.9 -1.0

Corrections in fms.

0.0 30 60 90 120

0

D7695

NOT. ATT'A'D

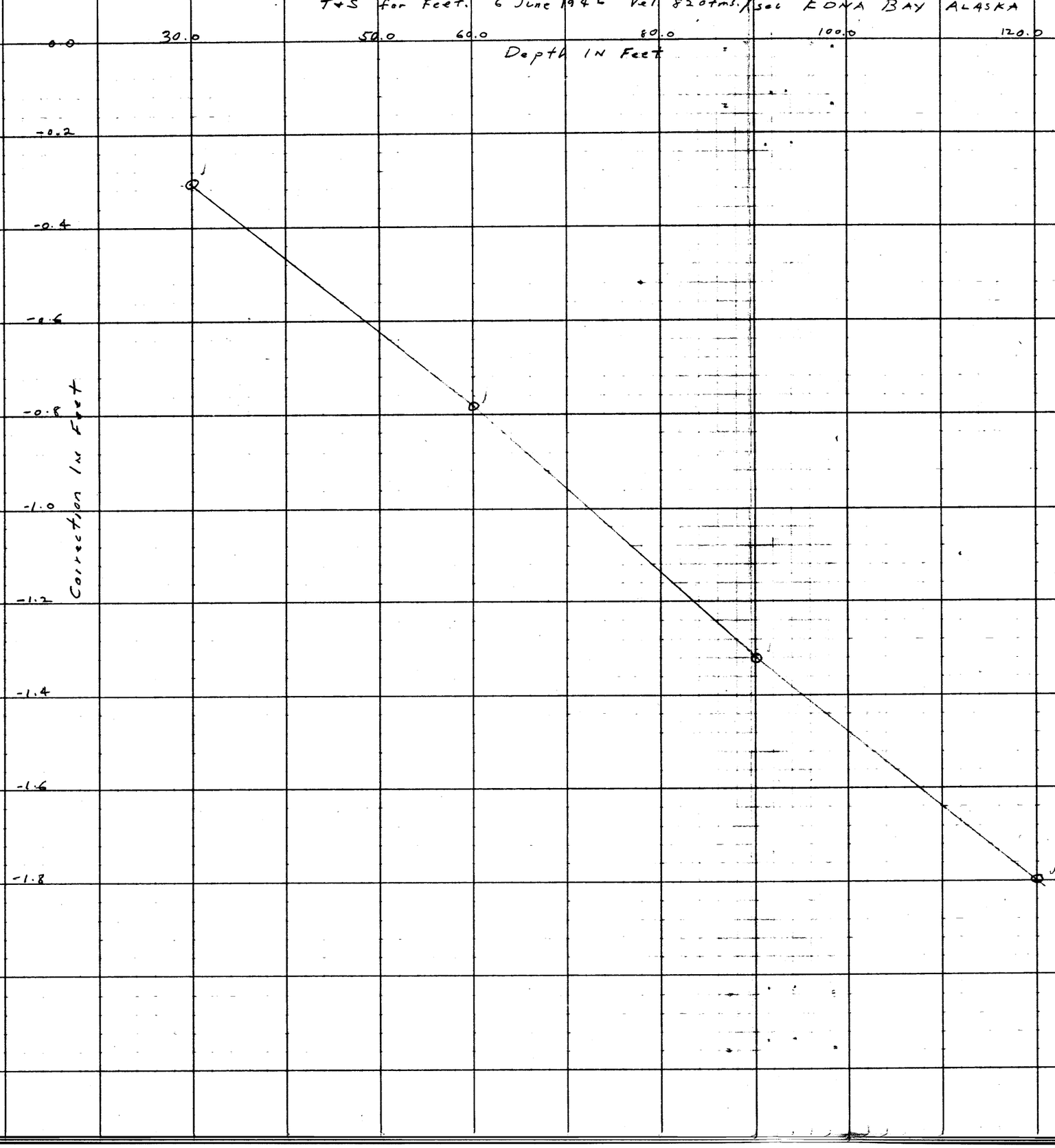
INV. REC'D

RECEIVED

CHECKED

Comp. Rm 73

T+S for Feet. 6 June 1942 Vel 820 fms./sec KONA BAY ALASKA



H7095

Corp. RHB
-H76.

0.0 20.0 40.0 60.0 80.0 100.0 120.0 Feet

Depth IN Feet

ft.

0.6

+ (PLUS) ON ORIGINAL DOCUMENT

0.4

0.2

0.0

Correction IN Feet

0.2

- (MINUS) ON ORIGINAL DOCUMENT

0.4

0.6

0.8

1.0

1.2

1.4

EDNA BAY ALASKA

Combined Bar Check + Salinity Curves For soundings in feet sheet 025146 "a" - "c" day

"C" Scale 1

Corrections - "A" Scale

+ 0.8	from 0.0 to 12.0
+ 0.6	12.1 to 45.5
+ 0.4	45.5 - 60.2
+ 0.2	60.3 - 71.5
0.0	71.6 - 82.9
- 0.2	83.0 - 94.9
- 0.4	95.0 - 107.0
- 0.6	107.0 - 120.0

All B scale soundings add 1.2 ft. for difference in phasing head due to scale change

All C " " " 0.7 ft. " " " " " " "

"B" Scale

+1.8	12.1 to 45.5
+1.6	45.5 to 60.2
+1.4	60.3 - 71.5
+1.2	71.6 to 82.9
+1.0	83.0 - 94.9

"C" Scale

+0.8	65.0 to 77.0
+0.6	77.1 to 88.5
+0.4	88.6 to 101.0
+0.2	101.1 to 113.5
0.0	113.6 to 126.0

H7695

Velocity Correction Curve For "a" - "f" Days Sheet 05146 EDNA BAY ALASKA

Depth in Fathoms

0 5.0 10.0 15.0 20.0 25.0 30.0 35.0 40.0 45.0

+0.2 +0.1 0.0 -0.1 -0.2 -0.3 -0.4 -0.5 -0.6 -0.7 -0.8

Correction in Fathoms.

Corrections	
+0.3	from 0 - 0.4 fms.
+0.2	0.5 - 3.5 fms.
+0.1	3.6 - 7.5 ✓
0.0	7.6 - 12.8 ✓
- 0.1	12.9 - 18.8 ✓
- 0.2	18.9 - 24.0 ✓
- 0.3	24.1 - 29.4 ✓
- 0.4	29.5 - 35.0 ✓
- 0.5	35.1 - 39.6 ✓
- 0.6	39.7 - 45.0 ✓

Comp. RMB ✓HJS

H7095

Fathoms 5.0 10.0 15.0 20.0 25.0 30.0 35.0 40.0 45.0

Depth IN Fathoms

+0.5
+0.4
+0.3
+0.2
+0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5

Correction IN Fathoms

+ (PLUS)
ON ORIGINAL
DOCUMENT

EDNA BAY ALASKA

Combined Bar Check + Salinity Curves For Soundings In Fathoms Sheet 05146 "g"-"h" Days

Corrections

+0.5	from	0.0 To 8.0 fms.
+0.4	-	8.1 - 13.8
+0.3	-	13.9 - 20.0
+0.2	-	20.1 - 25.0
+0.1	-	25.1 - 30.5
0.0	-	30.6 - 35.8
-0.1	-	35.9 - 40.4
-0.2	-	40.5 - 46.0

Comp. RWB

H7095

SUMMARY OF BAR CHECKS FOR SOUNDINGS IN EONA BAY 1946

Sheet 05146 BAR CHECK SUMMARY FATHOMS - Sheet PA 05146

	"a" Day Fath. 74s			"b" Day Fath 74s			"c" Day Fath 74			"d" Day Fath 74s			"e" Day Fath 74s	"f" Day Fath. 74's			Total	Average	Corr.
	A.M.	N	P.M.	AM	N	PM	AM	N	PM	AM	N	P.M.	AM	AM	N	PM			
2.0	1.9 1.9		1.9 1.9	1.9 1.9	1.9 1.9	1.9 1.9	1.9 1.9	1.8 1.8	1.7 1.7	1.8 1.8	1.9 1.9	1.8 1.8	1.8 1.8	1.8 1.8	1.8 1.8		236	1.8	+ 0.2
2.0																			
5.0	4.9 4.9		4.9	4.9	4.9	4.9	4.9	4.8	4.8	4.9	4.9	5.0	4.9	5.0	4.9		135	4.9	+ 0.1
5.0																			
10.0	.0																	10.0	0.0
10.0																			

ON ORIGINAL DOCUMENT

Fish Lowered from 2'9" to 4'0"

	"g" Day Fath 74			"h" Day Fath 74			Total	Average	
2.0	1.5 1.5	1.5 1.5	1.5 1.5	1.5 1.5	1.5 1.5			1.5	+ 0.5
2.0									
5.0	4.5	4.5	4.5	4.5	4.5			4.5	+ 0.5
5.0									
10.0									

ON ORIGINAL DOCUMENT

Initial Corrections 025146

"b" Day

		Corr
Pos. 164-176	3.5	+0.5

Initial Correction 05146

"e" Day

Pos. 23-33	0.3	+0.3

SHEET 025146 BAR CHECK SUMMARY Feet.

	"a" Day Fath 74	"b" Day Fath 74			"c" Day Fath 74			Total	Average	
12	11.5	11.5 11.5	11.5 11.5	11.2 11.2	11.5 11.0	11.2 11.2	11.3 11.3	4.4	11.3	+ 0.7
30	29.5	29.5 29.5	29.5 29.2	29.3 29.5	29.5 29.5	29.2 29.5	29.5 29.5	5.7	29.4	+ 0.6
48	47.5	47.5	47.5	47.5	47.5	47.5	47.8	3.8	47.5	+ 0.5
48 B	46.5	47.0	46.5	47.0	46.5	47.0	47.2	47.7	46.8	+ 1.2
	Bottom Comparison									
90 B					90.0				90.0	
90 C					90.5				90.5	

All "B" Scale sdgs add 1.2 for difference due to scale change

" "C" " " " " 0.7 " " " " " "

H 7095

Comp. RHB

Leadline Summary

Feet 025146

	"a"		"b"		"c"		"d"		"e"		"f"		"g"	
5	5	0.0	5	0.0	5	0.0	5	0.0	5	0.0	5	0.0	5	0.0
10	10	0.0	10	0.0	10	0.0	10	0.0	9.9	0.1	10	0.0	10	0.0
15	14.9	0.1	15	0.0	14.9	0.1	14.9	0.1	14.9	0.1	14.9	0.1	14.9	0.1
20	19.9	0.1	19.9	0.1	19.9	0.1	19.9	0.1	19.8	0.2	19.9	0.1	19.9	0.1
25	24.8	0.2	24.8	0.2	24.8	0.2	24.8	0.2	24.7	0.3	24.8	0.2	24.8	0.2
30	29.8	0.2	29.8	0.2	29.8	0.2	29.8	0.2	29.8	0.2	29.9	0.1	29.9	0.1
35	34.8	0.2	34.8	0.2	34.8	0.2	34.8	0.2	34.7	0.3	34.8	0.2		
40	39.7	0.3	39.7	0.3	39.7	0.3	39.7	0.3	39.6	0.4	39.8	0.2		
45	44.6	0.4	44.6	0.4	44.6	0.4	44.6	0.4			44.7	0.3		
50	49.6	0.4	49.6	0.4	49.7	0.3	49.7	0.3			49.8	0.2		
55	54.5	0.5	54.5	0.5	54.6	0.4	54.6	0.4						
60	59.6	0.4	59.6	0.4	59.7	0.3	59.7	0.3						
65	64.6	0.4			64.7	0.3								
70	69.6	0.4												
75	74.6	0.4												
80	79.6	0.4												

0.0	0-20	0.0 0-20	0.0 To 20	0.0 To 20	0.0 To 15	0.0 To 20	0.0 To 20
+0.2	21-40	0.2 21-40	0.2 - 40	0.2 - 40	0.2 - 35	0.2 - 45	0.2 - 30
+0.4	41-End	0.4 40-End	0.4 - End	0.4 - End	0.4 - End		

Fathoms 05146

	"a"		"b"	
1	5.8	0.97	5.8	0.97
2	11.8	1.97	11.8	1.97
3	17.9	2.99	17.9	2.99
4	23.9	3.99	23.9	3.99
5	29.9	4.99	29.9	4.99
6	35.9	5.99	35.9	5.99
7	41.9	6.99	41.9	6.99
8	47.9	7.99	47.9	7.99
9			53.9	8.99
10			59.9	9.99

No Correction Necessary
For "a" + "b" days 05146

N 795

NAUTICAL CHARTS BRANCH

SURVEY NO. H-7095

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
4/22/47	8171	L.A. McGann	~~Before~~ After ✓ Verification and Review
4/23/47	8152	L.A. McGann	~~Before~~ After ✓ Verification and Review
5/20/47	8201	A. Nichols	
			~~Before~~ After ✓ Verification and Review
8/27/47	8163 (N.C.)	J.M. McAlinden	~~Before~~ After Verification and Review
2-17-60	Reconst 8171	R.K. DeLawder	~~Before~~ After Verification and Review Thru Cht 8163 print date 6-2-52
April 2, 1968	Inset Edna Bay Cht 8171	Jeannette M O'Connor	~~Before~~ After Verification and Review Thru Cht 8163 which will be cancelled
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.